

### Muscles

The function of the muscular system is movement.

More than 40% of the mass of the average human body is muscle.

**There are three different types of muscle tissue:**

- **skeletal** (striated)
- **smooth**
- **cardiac**

Skeletal muscles:

- are usually attached to bones.
- are responsible for voluntary movements
- have many nuclei. ~~striated~~
- are                      called striated muscles.

Smooth muscles:

- are usually not under voluntary control.
- are spindle-shaped.
- have one nucleus.
- are not striated.
- are found in many internal organs and blood vessels. *digestive system*

Cardiac muscle: *(heart muscle)*

- is only found in the heart.
- is striated.
- may have one or two nuclei.

### How Muscles and Bones Interact

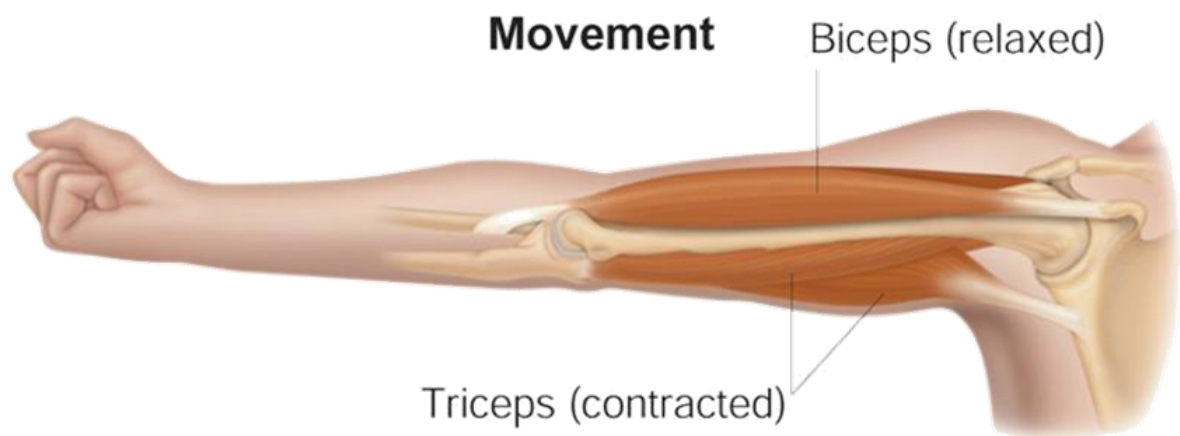
Skeletal muscles are joined to bones by **tendons**.

Tendons pull on the bones so they work like levers.

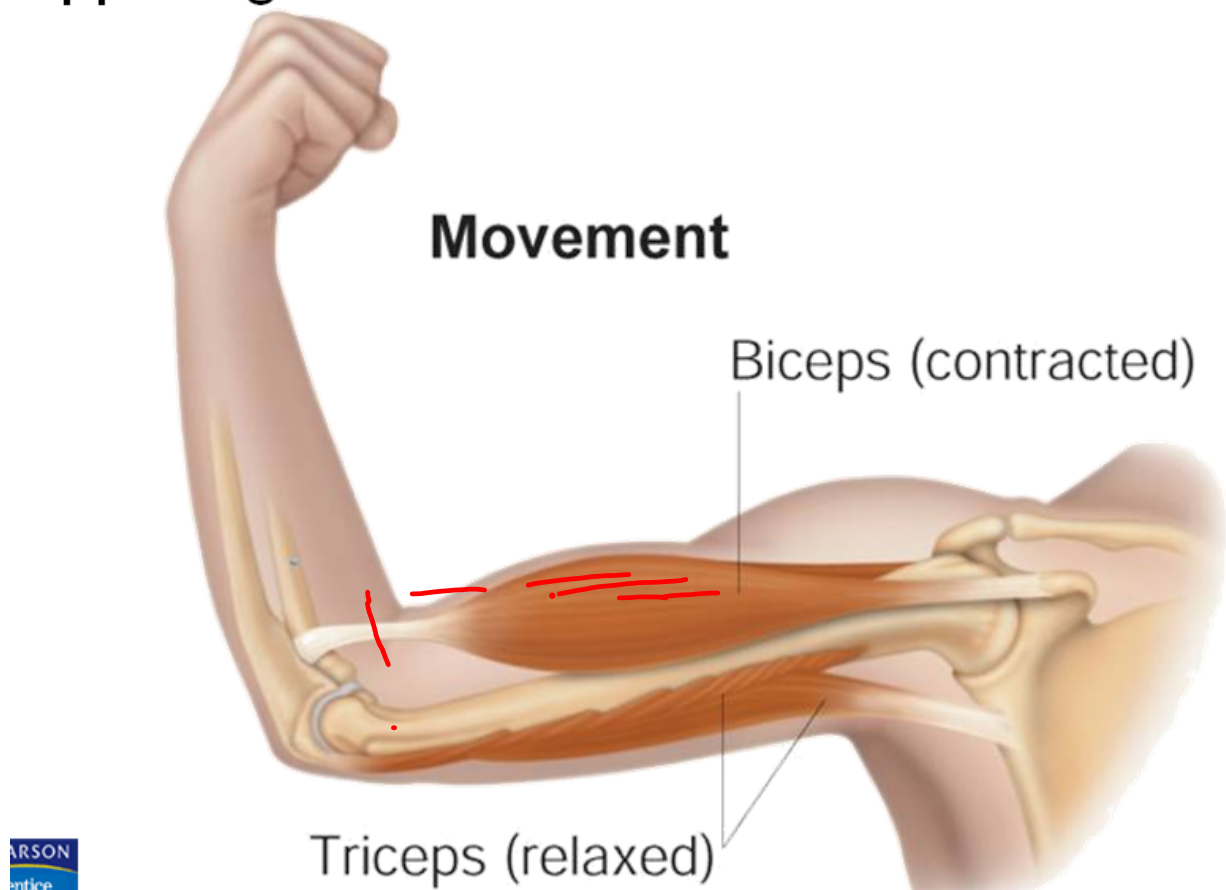
The joint functions as a fulcrum.

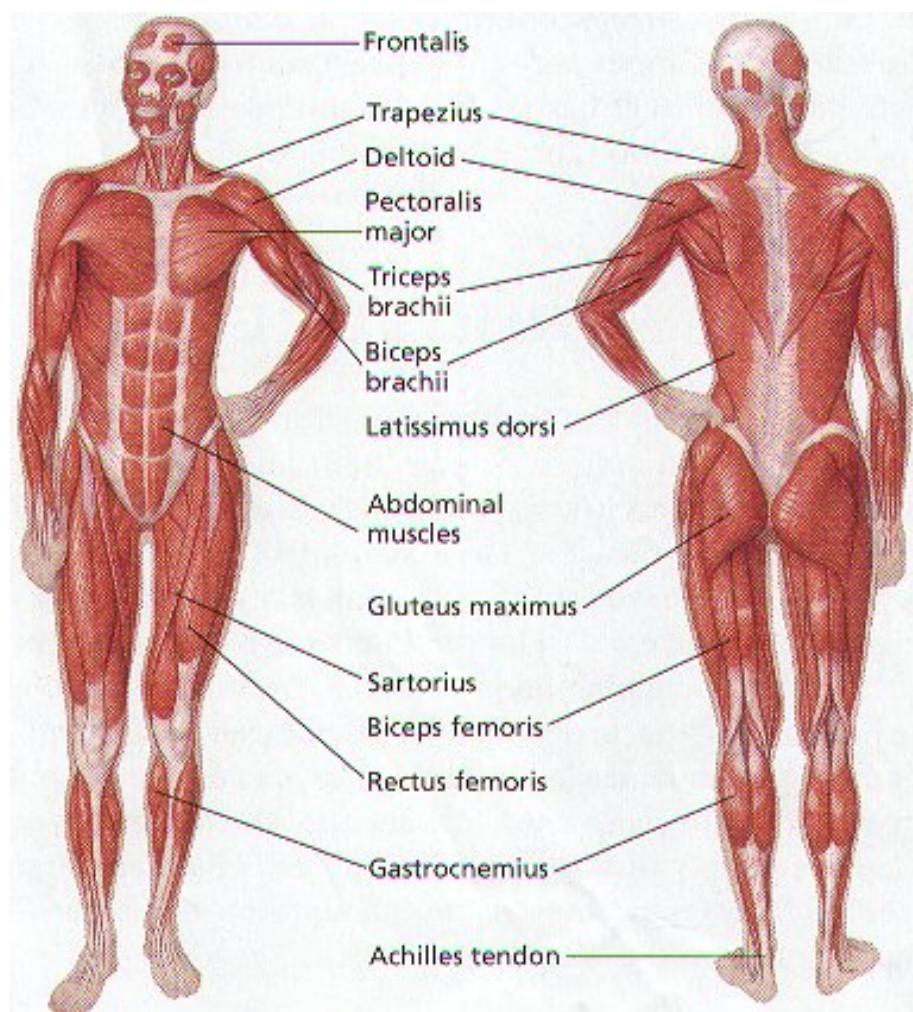
The muscles provide the force to move the lever.

## Opposing Muscles Contract and Relax

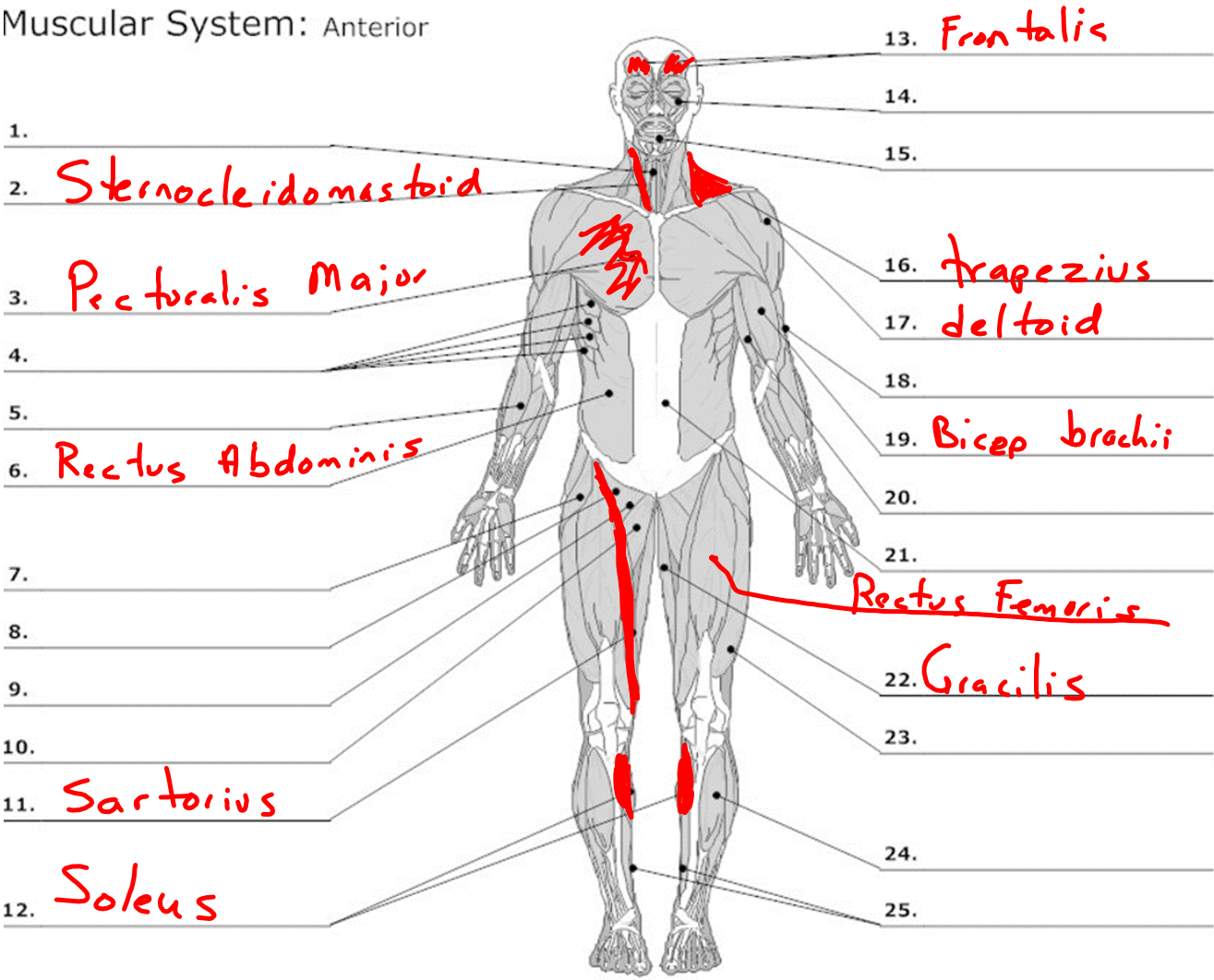


## Opposing Muscles Contract and Relax





Muscular System: Anterior



LifeART Collection Images Copyright © 1989-2001 by Lippincott Williams & Wilkins, Baltimore, MD

